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The project of design: a design experience for temporary buildings at the waterfront of Augusta (Italy)

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Abstract

One of the most complex aspects analyzed in contemporary cities is the ability to equip urban areas with comforting architectures and spaces having their own architectural and design identity. Some experimental projects now in progress underline that the concepts of flexibility and adaptability are essential within the evolution of architectonic space. Going deeper in terms of the modular architecture, being at the same time sustainable and innovative, we feel the need to discuss about an urban project able to pay attention to issues such as: the relationships with citizens, mobility, the correct use of time, the uncertainty of economics while elements such as permanence and immutability, are more and more discussed today and underline the new dimensions of transformability and instability. The proposal sees the insertion of a modular structure along the waterfront, with a system of horizontal and vertical circulation, and built with prefabricated elements that constitute boxes with different functions. We call them bangles. **Bangles** are prefabricated forms with standard dimensions. They are made with light materials and are flexible to be used in several combinations to create gathering spaces, commercial areas, restaurants, offices etc. The number of bangles could change depending on the request. The project considers the dismantlement of the bangles and the whole structure during the winter. The aim of our research was to reconsider a space which users could consider their own habitat, thanks to flexibility and to innovative solutions able to produce different combinations inside the same form, with the chance to be transformed depending on different needs. Environmental design will characterize the new urban waterfront of Augusta.

Keywords: Keywords: bangles, sustainable, innovative, flexible, prefabricated

1. Design project in the 21st Century

Is there anything in today's society that is self-evident, that we do not need to discuss? Nothing seems decisive enough to pre-empt doubts. Reliable certainties are rare and almost nothing can be taken for granted anymore. The language we use, the places we live in, the social classes we belong to, the trades we learn, the institutions we work for, virtually everything and everyone needs to be justified or defended.

Confrontational questions are posed every day: is what you are doing actually relevant or useful? And will it remain so tomorrow? Reality checks like these often result in radical change.

Things are no different for architecture. The complacency with which this profession used to concentrate on producing unique forms and concepts has made way for a renewed interest in the public significance of architecture. At the same time, the unquestionability of the central role the discipline traditionally played in the design and construction of society is fading. As a profession, architecture is now facing serious competition from other specialists in the building process. As a technique architecture has become part of a chain of construction that reaches beyond its particular expertise. As an art form it is severely criticized as the arcane idiom of an elitist in-crowd. As an economic activity it is being undermined on all sides, and making a decent living in architecture has become a challenge. No wonder the profession is enthusiastically searching for the surplus value of architecture and the role of architect. It is significant that coming up with precise definitions for these idioms is far from a simple exercise.

It may seem sardonic to say that despite these uncertainties, our is a fantastic age. How privileged we are to live in an era in which we once again have to prove what things are really for and how our actions really matter. How great to stand for an Architecture the world cannot live without.

All over the world there is enormous demand for convincing examples of architecture that provides solutions. In many cases these solutions take the form of social projects, intended to bring about immediate improvement in living conditions. Increasingly projects are responding not to a great need, but to a great opportunity that has long been latent and is suddenly reinterpreted from a new social engagement perspective. This is architecture that proves that all sorts of unexpected possibilities exist for creating healthy and sustainable environments, supporting social networks and creating new revenue models. This is the point when we talk about an architecture that works, not just in direct function, but also in programmatic reach, in its cultural effect, and ultimately in its value to society. Demonstrate that architecture could be able to solve problems.

What is most striking is that in judging the success of their everyday surroundings, people do not immediately talk about physical architecture. Their focus is much more on the ways in which their space is organized and therefore how everyday life and its physical backdrop influence each other.

Sometimes there is no surprise to appreciate designs that people not even recognize as architecture.

This is the Century when architecture is reinventing itself and it's wonder that we are amazed at how it looks, at what architecture is, and how it can be turn out to be.

Virtually all believe that the primary goal of projecting design architecture is to make peoples' lives better. Design practice should respond technical, functional and cultural needs and go on to create innovative solutions which communicate meaning and emotion and which ideally transcend their appropriate form and structure.

The psychological aspects of design are also extensively addressed and given prominence as never before. There is a general consensus that projects need to go beyond considerations of form and function if they are to become "object of desire" in an increasingly competitive market world. To achieve this, projects must make pleasurable emotional connection with their end-users through the joy of their use and/or the beauty of their form. Emotionalism is considered by many designers not only as a powerful and essential way of facilitating better and more meaningful connections between projects and their users, but as an effective means of differentiating their solutions from the rest.

2. Individualism of the project

The theme that emerges today is the tendency toward either individualistic or universal solutions potentially holds the farthest – reaching consequences for the future direction of the design architectures. While some architects and designers promote individualism in design as a channel for personal creative expression or to cater to people demand for individualistic projects, others advocate universal solutions, which are generally more environmentally sound and whose emphasis upon greater functional and aesthetic durability offers better value.

Individualism in architecture can be regarded as a reaction against the uniformity of the projects and the increasing homogenization of global culture. But with the objective of providing more expressive content, individualistic project solutions can often lead to higher costs and accelerated obsolescence. On the other hand, while the nature of universal architecture can sometimes be alienating, individualistic design projects often remains to preserve of the wealthy *élite*.

Certainly, there is a growing need for architects to view themselves as stakeholders in their project solutions and the develop them within an understanding of the environmental impact of every aspect of their project. But there is also a pressing requirement to connect users in more meaningful ways with technologically increasingly complicated projects.

Nowadays it would seem that a more considered human-centric approach to design projects would provide the best means of satisfying both functional and psychological needs.

There is consequently a growing moral imperative for them chart for a new and better direction in architecture solutions, namely one which focuses on the development of real-need based, humanistic and sustainable solutions. Architects and designers should be able to create the types of ethical and relevant projects.

The quality of our culture is being determined by the actions and the choices we take now, and so it must be right that every individual – architect, designer, user – should acknowledge the need for a responsibility, based culture and should share in the collective goal of forging a better tomorrow.

3. What really happens after a project is completed?

Trough a critical diagnosis we realise there is something wrong in the state of design architecture today. First of all is a problem of superficiality: architecture is too often about a flashy first impression, the primary contact that a building makes with the viewer. Architecture photographers call this the “money shot”, and these images are usually devoid of human presence or interaction. The building becomes the center of attention, not the people using it or living in it. The second problem is that the best part of the architects suffer from an exclusivity complex, as they deliberately talk only to each other (often in highly-conceptual terms). Discussing architecture solely from an elevated perspective of those who project the buildings, ignores a much larger crowd of ordinary users and inhabitants, the people who experience the buildings and could provide extraordinarily valuable input for the architect if only they were asked. Finally a serious problem is that architects generally seem to learn very little from their own buildings. Most architects never go back to the building they designed after they are built, and so they know very little about their afterlife. Founding out what really happens after a building is finished doesn't seem to be anyone's job.

It is a hard work but the people should be brought back into the picture and then actually given them a voice, allowing those who live in and use buildings to contribute to a conversation that should have been happening along.

4. A design experience for temporary buildings at the waterfront of Augusta

This research deals with an example of sustainable development of the urban waterfront of Augusta, through an analysis of the relationship between this part of urban landscape with his own great historical and environmental value, and the design/architectural project.

The project we propose takes the chance to open itself up to critical self-reflection. The project is featured by a deep attentiveness towards the complex relationships between context and spatial intervention and a thorough understanding of the transformational power of architecture over time. The new building addresses the numerous current adaptive systems of social, political, ecological and economic challenges and responsibilities that we face today. The project represents an example of how to make a problem into a concrete possibility – not only for a solution but an opportunity to highlight the complex set of factors from which the situation has arisen.



Image 1: Augusta, Capo Santa Croce

5. Places, analysis and strategies

5.1 Places

The project proposal required careful analysis of the territory and this analysis produced a series of essential considerations over the project area. From Brucoli to Augusta, the eastern coast of Sicily is made by a jagged and white limestone cliff. It is a part of a massive hillside improperly called Mount Tauro. An immense natural bastion about ten kilometers long. This hill delimits the bay of Brucoli to the north and forms the east coast of Augusta. Sant'Elena is the southern part of the coast of Mount Tauro, and arrives to the Ionian Sea with an apical promontory, Capo Santa Croce. Located between the Salvatore bay to the north and Punta Izzo to the south, this part of the coast, sinking into the sea, to re-emerge after ten meters with a flat rock half submerged under the water, is very dangerous for those who sail next to the coast. Greek sailors in the 8th Century b.C. colonized this area giving it the name of Xiphonio. Since Xiphonio derives from Xiphos meaning sword, modern historiography says, quite rightly, that the name comes from the same shape of the area, sharp and pointed like a sword. Gregorio from Tours (538-594), bishop and writer of the 6th Century, tells that in the year 324 the Empress of Byzantium, Emperor Constantine's mother, who has recently converted to Christianity, went on a pilgrimage to the Holy Land and helped by Macario, bishop of Jerusalem, has got precious parts of the crucifixion of Christ. With the relics he sailed to Rome. During sailing, however, the imperial met a violent storm and was likely to sink. The emperor then "immerses in the sea a nail of crucifixion and immediately the waves sink." The legend says that, in order to repair the damage caused by the storm, the ship will temporarily land on the shore of the Xiphonio promontory. Elena erected a little church whose name is Santa Croce. Since that time the area was called Capo Santa Croce. (Image 1) A few Centuries later, when the Empress had already been proclaimed Holy and Sicily became part of the Byzantium Empire (in 535), Byzantine monasticism built a huge number of hermitages along this part of coast. During the following years the city of Augusta was founded. The mountain, due to its morphological shape, made it easy the rubbers and the raids from the Turks and pirates. In 1584 Camillo Camilliani, an engineer of the Sicilian kingdom sent to inspect the most exposed coasts to the rush of the corsairs, prepared the project of a sighting and defense tower just on the headland of Capo Santa Croce. The work was realized only in 1856, in the twilight of the Bourbon kingdom. The Faro became the sailor's light, and symbol of a place that today needs a serious work of restauration.

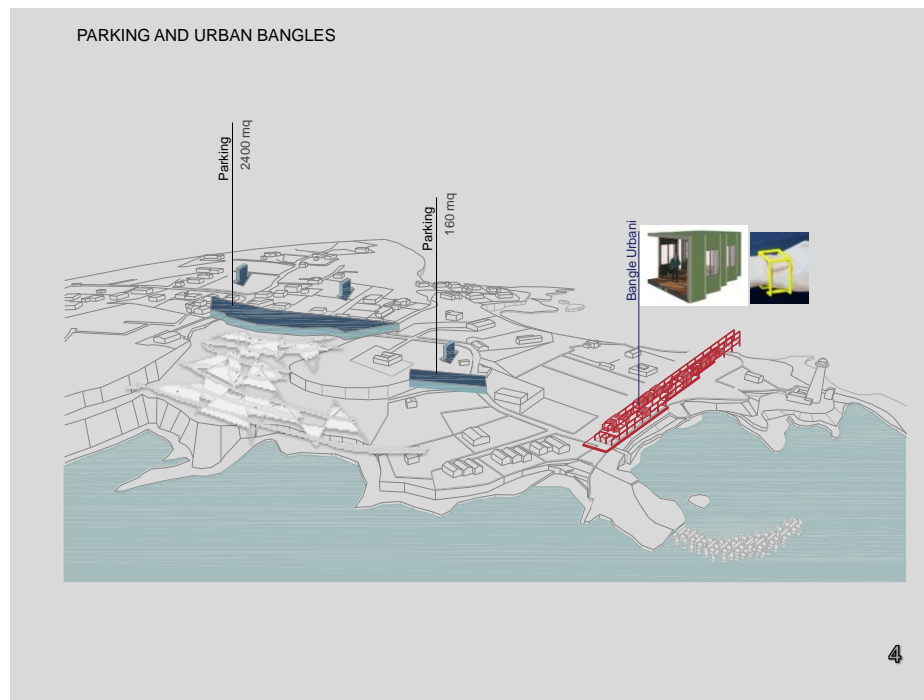


Image 2: Augusta waterfront - project of urban bangle

5.2 Analysis and strategies

The area, terraced spaces along the coast, some of which are protected by landscape constraints, leads to the choice of a design project aimed at the definition of a nature park that through the realization of suitable crossing routes should be able to improve permeability between the coast and the interior of the territory.

The project is aimed on providing this part of the coast of recreational and cultural temporary facilities to improve the coastline's liveability during the summer season and able to produce an urban project. It also involves the construction of an urban park with a parking area for wheeled vehicles, new access routes to the coast, some of which for slow mobility integrated with green shaded areas.

5.3 Modular design: urban bangle

Inside the historical urban development of the city of Augusta, strategically related to the sea, the relation with the coast has constantly represented, during centuries, one of the most important elements able to increase its economic and historical value. Nevertheless the demands of the bordering port area and the constant presence of industrial plants did not leave room to the growth and development of the residual coastal urban areas, where the access to the sea, almost miraculously, still today remains open to the public.

The central point of our idea was to provide services to citizens, through the creation of temporary design architectures, able to retrain, make more accessible, increase the growth and development of this part of the coast. (Image 2)

Some projects carried out during the 1960s were an attempt to find new meanings of a life style in continuous changing, discovering new ways of living in the city. At the moment there exist several extreme examples facing with the concept of flexibility and adaptability about the collective space where a mutable space corresponds to an articulated *façade* and where movements represent a direct relation with an active and dynamic civilization. (Nagakin Capsule Tower building – Kisho Kurokawa-Ginza 1972; Plug – In – City, Archigram – Peter Cook-). (Image 3)

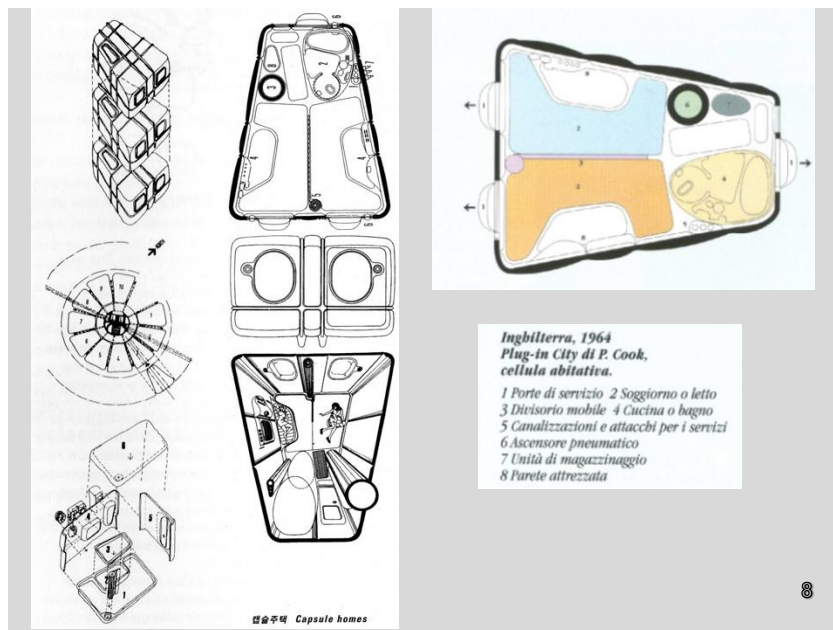


Image 3: England, Plug In City, P. Cook, 1964

Going deeper in terms of the modular architecture, being at the same time sustainable and innovative, we feel the need to discuss about an urban project able to pay attention to issues such as: the relationships with citizens, mobility, the correct use of time, the uncertainty of economics while elements such as permanence and immutability, are more and more discussed today and underline the new dimensions of transformability and instability. The proposal sees the insertion of a modular structure along the waterfront, with a system of horizontal and vertical circulation, and built with prefabricated elements that constitute boxes with different functions. We call them bangles. (Image 4) **Bangles** are prefabricated forms with standard dimensions. They are made with light materials and are flexible to be used in several combinations to create gathering spaces, commercial areas, restaurants, offices etc. The number of bangles could change depending on the request. The project considers the dismantlement of the bangles and the whole structure during the winter. The aim of our research was to reconsider a space which users could consider their own habitat, thanks to flexibility and to innovative solutions able to produce different combinations inside the same form, with the chance to be transformed depending on different needs. Environmental design will characterize the new urban waterfront of Augusta.

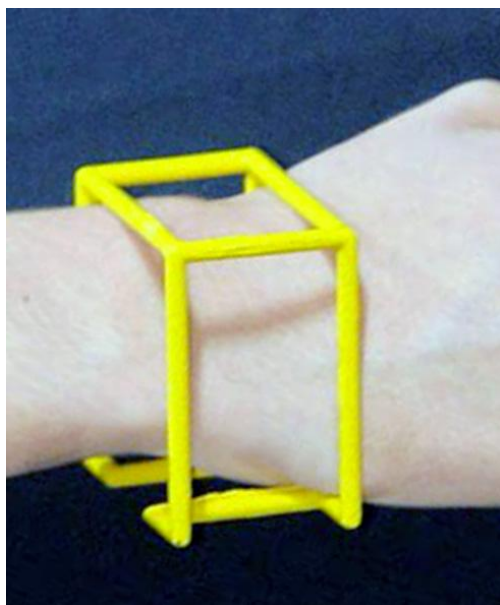


Image 4: Bangle

We were forced to pay serious attention to the analysis of this part of the urban waterfront of Augusta. This produced some essential points of discussion about the area of study. The main aim of the research was to equip this part of coastline with temporary playful and cultural services able to

improve the use of the waterfront during the summer, and able, during the years, to renovate the urban accessibility process.

The project of the park was born from the ideological structure of fractal geometry: geometric objects that repeat their form in the same way on different scales. The distribution sequence of the garden develops according to a triangular mesh placed on the ground according to the main direction of the level curves so that the vertices of each triangle are at the same height. (Image 5)

This geometric order, variable with the different dimensions, allows to rationalize the land according to a hierarchy of distribution paths depending on the use, inclinations and plants.



Image 5: **The park**

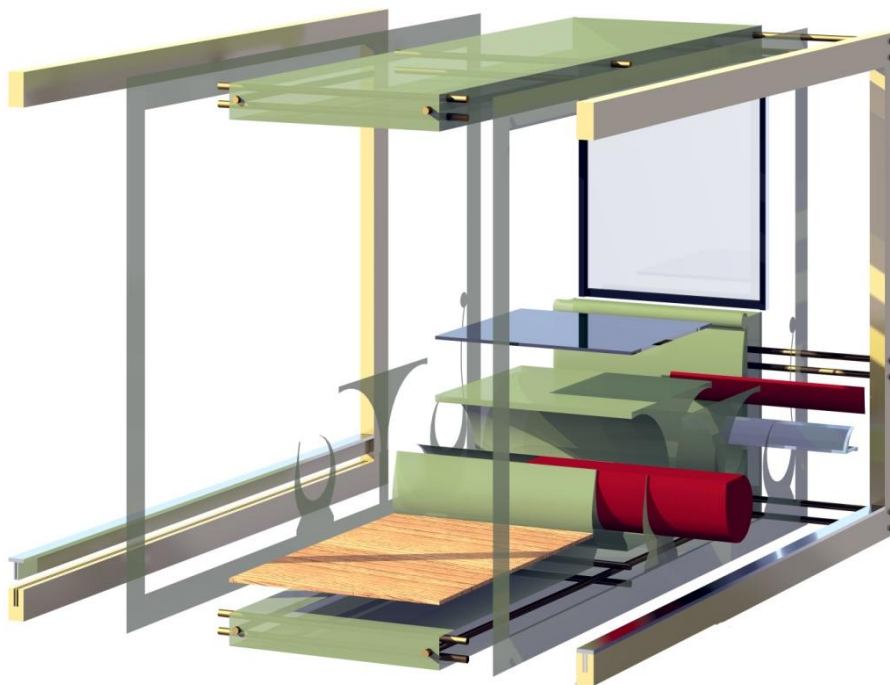


Image 6: **Urban bangle**

The park is articulated into a system of triangular fragments, paved with white local stone, with the containment structure of the ground made of steel.

This system, adapting to different inclinations, generates concave and convex spaces such as viewing ideal points, green spots and shaded areas.

The variation in the number of prefabricated elements within the modular structure will produce continuous variations in the shape of the building and point out the theme of fragmentation, a choice that wants to condense urban life into articulated structures that collect multiple functions. (Image 6,7)

This research wants to demonstrate how much architecture can contribute to the alleviation of great social challenges involving space, social cohesion and value creation; makes architecture relevant again in your designs and in discussions. But you can only really prove this if it actually works that way in practice, and to achieve this you have to look beyond intentions and the design analysis. For this you have to listen to the users themselves, those who experience day to day whether your good intentions came true. These users are the witnesses you need in order to judge the quality of good architecture. And because they are users, the point is not a final verdict, but rather an ongoing insight can be directly put to use in new project. (Image 8,9)



Image 7: Urban bangle

Conclusion

Today architects see themselves facing new challenges and responsibilities that go well beyond their discipline's horizon of experience. If these challenges are to be met, then an integrative and inclusive approach must be taken to breaking down the boundaries between architecture and other spheres of exterior knowledge and experience.

It is not a good thing for the critical investigation of architecture to be regarded as an exclusive endeavour reserved only for an esoteric circle of professional insiders. It should be understood and openly debated across a much broader spectrum. As much an architect would like to understand his or her building as perfect or finished, reality makes any new building necessarily unfinished and imperfect, though perhaps perfectible in time. We can expect the future to be shaped by demographic, social and cultural changes, but what these inevitable changes and their consequences might exactly be, we can only speculate about.

One key to meet the requirements of an ever-changing society in spatial terms, however, is the ability to think and act flexible over time. This doesn't necessarily mean that a building should be designed so that its purpose can evolve as its needs change over time, but that we essentially remain open towards the unexpected and continue to relish the moment of surprise.

Mistakes, sometime a lot of them, can nevertheless arrive; but at least mistakes clearly show us what needs improvements. And without mistakes, how would we know what we had to work on?



Image 8: Urban bangle



Image 9: Urban bangle *

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* all the images belongs to the final presentation of the graduation thesis of Carmelo Ferraguto, professor Nicoletta Nicolosi

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